

U.S. Serial No. 10/797,452
Amendment Dated September 28, 2006
Response To Office Action Dated May 23, 2006

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Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the above-identified application:

Listing of Claims

1. (Currently Amended) A turbine engine having a seal, comprising:
a plurality of blades extending radially from a rotatable body and generally forming at least one row of blades;
a plurality of blades extending radially from a stationary body towards the rotatable body and generally forming at least one row of blades;
a high pressure gas region in the turbine engine that is proximate to the plurality of blades extending radially from the stationary body and opposite to the plurality of blades extending radially from ~~[[a]] the~~ rotatable body;
a low pressure gas region in the turbine engine that is proximate to the plurality of blades extending radially from ~~[[a]] the~~ rotatable body and opposite to the plurality of blades extending radially from the stationary body, wherein the low pressure region has a pressure less than the high pressure region;
wherein the plurality of blades extending from the rotatable body and the plurality of blades extending from the stationary body form the seal between the high pressure gas region and the low pressure gas region;

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wherein the plurality of blades extending radially from the stationary body are positioned proximate to the plurality of blades extending from the rotatable body and are nonparallel with the plurality of blades extending from the rotatable body, and the plurality of blades extending radially from the stationary body are positioned at an acute angle relative to a rotational axis of the rotatable body in the at least one row of blades that is generally orthogonal to the rotational axis; and

wherein the plurality of blades coupled to the rotatable body are positioned to direct fluids from the low pressure gas region toward the high pressure gas region to limit leakage of fluids from the high pressure gas region proximate to the at least one row of blades coupled to the stationary body to the low pressure gas region proximate to the at least one row of blades coupled to the rotatable body.

2. (Previously Presented) The turbine engine having a seal of claim 1, wherein the plurality of blades extending radially from the stationary body are generally orthogonal to the plurality of blades extending from the rotatable body.

3. (Previously Presented) The turbine engine having a seal of claim 1, wherein the plurality of blades extending radially from the rotatable body are aligned at an angle of between about 1 degree and about 89 degrees relative to a rotational axis of the rotatable body.

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4. (Previously Presented) The turbine engine having a seal of claim 3, wherein the plurality of blades extending radially from the rotatable body are aligned at an angle of about 60 degrees relative to a rotational axis of the rotatable body.

5. (Previously Presented) The turbine engine having a seal of claim 1, wherein the plurality of blades extending radially from the stationary body are aligned at an angle of between about 1 degree and about 89 degrees relative to a rotational axis of the rotatable body.

6. (Previously Presented) The turbine engine having a seal of claim 5, wherein the plurality of blades extending radially from the stationary body are aligned at an angle of about 60 degrees relative to a rotational axis of the rotatable body.

7. (Canceled)

8. (Canceled)

9. (Previously Presented) The turbine engine having a seal of claim 1, wherein the plurality of blades extending radially from the rotatable body extend to within about 0.6 millimeters radially from the stationary body.

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10. (Previously Presented) The turbine engine having a seal of claim 1, wherein the plurality of blades extending radially from the stationary body extend to within about 0.6 millimeters radially from the rotatable body.

11. (Currently Amended) A turbine engine having a seal, comprising:
a plurality of blades extending radially from a rotatable body and positioned generally nonparallel to a rotational axis of the rotatable body, wherein the plurality of blades generally form at least one row of blades;

a plurality of blades extending radially from a stationary body towards the rotatable body and positioned nonparallel to the rotational axis of the rotatable body, wherein the plurality of blades form at least one row of blades; a high pressure gas region in the turbine engine that is proximate to the plurality of blades extending radially from the stationary body and opposite to the plurality of blades extending radially from ~~[[a]]~~ the rotatable body;

a low pressure gas region in the turbine engine that is proximate to the plurality of blades extending radially from ~~[[a]]~~ the rotatable body and opposite to the plurality of blades extending radially from the stationary body, wherein the low pressure region has a pressure less than the high pressure region;

wherein the plurality of blades extending from the rotatable body and the plurality of blades extending from the stationary body form the seal between the high pressure gas region and the low pressure gas region;

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wherein the plurality of blades extending radially from the stationary body are positioned proximate to the plurality of blades extending from the rotatable body and are nonparallel with the plurality of blades extending from the rotatable body, and the plurality of blades extending radially from the stationary body are positioned at an acute angle relative to a rotational axis of the rotatable body in the at least one row of blades that is generally orthogonal to the rotational axis; and

wherein the plurality of blades coupled to the rotatable body are positioned to direct fluids from the low pressure gas region toward the high pressure gas region to limit leakage of fluids from the high pressure gas region proximate to the at least one row of blades coupled to the stationary body to the low pressure gas region proximate to the at least one row of blades coupled to the rotatable body.

12. (Previously Presented) The turbine engine having a seal of claim 11, wherein the plurality of blades extending radially from the stationary body are generally orthogonal to the plurality of blades extending from the rotatable body.

13. (Previously Presented) The turbine engine having a seal of claim 11, wherein the plurality of blades extending radially from the rotatable body are aligned at an angle of between about 1 degree and about 89 degrees relative to a rotational axis of the rotatable body.

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14. (Previously Presented) The turbine engine having a seal of claim 13, wherein the plurality of blades extending radially from the rotatable body are aligned at an angle of about 60 degrees relative to a rotational axis of the rotatable body.

15. (Previously Presented) The turbine engine having a seal of claim 11, wherein the plurality of blades extending radially from the stationary body are aligned at an angle of between about 1 degree and about 89 degrees relative to a rotational axis of the rotatable body.

16. (Previously Presented) The turbine engine having a seal of claim 15, wherein the plurality of blades extending radially from the stationary body are aligned at an angle of about 60 degrees relative to a rotational axis of the rotatable body.

17. (Canceled)

18. (Canceled)

19. (Previously Presented) The turbine engine having a seal of claim 11, wherein the plurality of blades extending radially from the rotatable body extend to within about 0.6 millimeters radially from the stationary body.

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20. (Previously Presented) The turbine engine having a seal of claim 11,
wherein the plurality of blades extending radially from the stationary body extend to within
about 0.6 millimeters radially from the rotatable body.